



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,580	07/15/2005	Michael Fischle	FISCHLE ET AL 1 PCT	6553
25889	7590	11/03/2006	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			TRIEU, THAI BA	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/524,580	Applicant(s) FISCHLE ET AL.	
	Examiner Thai-Ba Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02/15/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Preliminary Amendment filed on February 15, 2005 is acknowledged. Claims 1-9 were cancelled; and claims 10-17 were added.

Specification

1. IN THE ABSTRACT:

Applicants are required to submit a substitute abstract to meet the requirement set forth below:

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited **to a single paragraph on a separate sheet within the range of 50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. IN THE SPECIFICATION:

The following headings of the specification are missing, such as :

- ***Background of the invention.***
- ***Brief summary of the invention.***

- ***Brief Description of the Drawing(s).***
- ***Detailed Description of the Preferred embodiments.***

Appropriate correction is required.

Claim Objections

Claims 11-12 and 17 are objected to because of the following informalities:

1. In claim 11, line 2, -- **the**-- should be inserted before ***“intervention”*** (for addressing a double recitation in claims).
2. In claim 12, line 2, -- **the**-- should be inserted before ***“intervention”*** (for addressing a double recitation in claims).
3. In claim 17, line 10, ***“a compressor unit (15)”*** should be replaced by – **a compressor control unit (15)**-- (for correcting typo error).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “a first limiting amplitude and a second limiting amplitude”, does not reasonably provide enablement for “intervention being carried out differently than when a second limiting amplitude which is greater than the first limiting

amplitude is exceeded". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and its dependent claim 2-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically,

- In Claim 10, line 4, the recitation of "specifically" renders the claim indefinite, since it is not clear that how specifically is an output signal of an air flow sensor to be monitored and intervention to be carried out? Applicants are required to clarify or revise the claimed limitation.

- In claims 12-13, lines 1-2; claim 15, line 3; and claim 16, lines 1-2, the recitation of "the limiting value" renders the claim indefinite, since it is not clear that which limiting value applicants want to reference to. Applicants are required to identify this limiting value.

- In claim 11, lines 14, the recitations of "a first amplitude value" and "a second amplitude value" render the claim indefinite, since it is not clear that which limiting amplitude is to be considered as a first, and which one is a second. Applicants are required to identify a first limiting amplitude and a second amplitude.

Art Unit: 3748

- In claim 11, the recitation of "intervention being carried out differently than ____ when a second limiting amplitude which is greater than the first limiting amplitude is exceeded" renders the claim indefinite, since applicants want to disclose the intervention being carried out differently than which component, element, or another intervention. Applicants are required to fill up the blank space or to revise the claimed limitation.

- In claim 16, line 2, the recitation of "the injection quantity of the internal combustion engine being reduces"" renders the claim indefinite, since it is not clear that which kinds of injection quantity to be referenced to such as water, fuel, gasoline, or additional air. Applicants are required to revise the claimed limitation.

- In claims 11-12, line 2, the recitation of "intervention" is double recitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Danno et al. (Patent Number 4,705,001).

Regarding claim 17, Danno discloses an internal combustion engine, in particular of a motor vehicle,

Art Unit: 3748

having an intake section (1) in which a compressor (5) for generating charging air and an air flow sensor (16) for determining an output signal which correlates to the intake air flow are arranged,

having an engine control unit (14) which communicates with the air flow sensor (16) and uses the output signal to control and/or regulate the internal combustion engine (E),

having a compressor unit (14, 15, 7) which regulates and/or controls the compressor (5) as a function of a state variable which describes the behavior of the compressor (5),

wherein

the air flow sensor (16) is arranged upstream of the compressor (5) in the intake section (1),

the compressor control unit (14, 15, 7) communicates with the air flow sensor (16) and uses the frequency and/or the amplitude of the output signal of the air flow sensor (16) to control and/or regulate the compressor (5) (See Figure 1, Column 3, lines 28-39).

Regarding claim 10, the method as claimed would be inherent during the normal use and operation of Danno device as disclosed in the rejection of claim 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danno et al. (Patent Number 4,705,001), in view of Engel et al. (Patent Number 6,253,748 B1).

Danno discloses the invention as recited above, and further discloses the compressor (5) forming a component of an exhaust gas turbocharger (3, 4, 5) (See Figure 1); however, Danno fails to disclose a set point charging pressure being reduced, the opening condition of an exhaust gas recirculation device, and the injection quantity.

Engel teaches that it is conventional in the internal combustion engine art having an exhaust gas recirculation system, to utilize the limiting value is exceeded, a set point charging pressure being reduced, an exhaust gas recirculation valve (120) of an exhaust gas recirculation device of the internal combustion engine (100) is actuated in order to open it; and the injection quantity of the internal combustion engine being reduced (See Figures 1-5, See Column 3, lines 31-67, Columns 4-5, lines 1-67, and Column 6, lines 1-17).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a set point charging pressure being reduced, the

Art Unit: 3748

opening condition of an exhaust gas recirculation device and the injection quantity, as taught by Engel, to improve the control system of the Danno device.

Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danno et al. (Patent Number 4,705,001), in view of Fausten et al. (Patent Number 6,308,517 B1 B1).

Danno discloses the invention as recited above, and further discloses the compressor (5) forming a component of an exhaust gas turbocharger (3, 4, 5) (See Figure 1); however, Danno fails to disclose a set point charging pressure being reduced, the opening condition of an exhaust gas recirculation device, a guide vane device of a turbine; and the injection quantity.

Fausten teaches that it is conventional in the internal combustion engine art having an exhaust gas recirculation system, to utilize the limiting value is exceeded, a set point charging pressure being reduced, an exhaust gas recirculation valve (20) of an exhaust gas recirculation device of the internal combustion engine (M) is actuated in order to open it; a guide vane device (16) of a turbine of the exhaust gas turbocharger being actuated in order to open the guide vanes; and the injection quantity of the internal combustion engine being reduced (See Figures 1, See Column 3, lines 15-67, Column 4, lines 1-67, and Column 6, lines 1-7).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a set point charging pressure being reduced, the opening condition of an exhaust gas recirculation device, a guide vane device of a

turbine; and the injection quantity, as taught by Fausten, to improve the control system of the Danno device.

Conclusion

The IDS (PTO-1449) filed on February 15, 2005 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bleile et al. (US Patent Number 6,945,234 B2) disclose a method for operating an internal combustion engine having a compressor.

- Weinreuter (US Patent Number 6,644,029 B2) discloses a process for control of boost pressure limitation of a turbocharged internal combustion engine.

- Weber et al. (US Patent Number 6,581,382 B2) disclose a method and an apparatus for controlling a supply system for an internal combustion engine.

- Furuya (US Patent Number 5,159,913) discloses a method and a system for controlling an internal combustion engine coupled to a turbocharger.


- Ishigami (US Patent number 4,572,139) discloses a fuel supply control system for an internal combustion engine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB
October 23, 2006


Thai-Ba Trieu
Primary Examiner
Art Unit 3748